AMENDMENT

IN THE CLAIMS:

Please amend claims 16-26 as follows:

Claim 16 (currently Amended): A database reorganization system, comprising

~~data records for holding data entries, each data record contain~~ containing ~~a primary key;~~ a database system that holds data records having data items including primary keys,

primary blocks ~~for storing~~ that store the data records in the order of their primary keys ~~thereof;~~,

overflow blocks linked to the primary blocks; and

a location table reserved in a contiguous region and contains location table entries, said location table entry contains addresses of the primary block, to retrieve a target record by means of binary searches performed on tne location tables,

said database reorganization system further comprising:

a current location table and a new location table in contiguous regions for containing ~~in contiguous regions~~ location table entries describing the addresses of the primary blocks to sequentially write location table entries in the current location table to the new location table, a current location table reorganization pointer that indicates next address of current location table entry which had written location table entry to new location table and indicates through which entry in the current location tables reorganization has completed;

a new location table reorganization pointer that indicates next address of new location table which had written location table entry in the new location table and indicates through which entry in the new location table reorganization has completed; and

a current location table final pointer that indicates the final position used by ~~that~~ said location table.

Claim 17 (Previously Presented): The database reorganization system of claim 16, wherein

the database recognition system is configured to sequentially write entries in the current location table to the new location table and, where any overflow block is present, to delink said overflow blocks, creating new entries corresponding to the primary blocks and adding the new entries to the new location table.

Claims 18-20 (cancelled):

Claim 21 (currently amended): A method of reorganizing the database reorganization system of claim 16, comprising steps of:

when retrieving a record with the primary key during reorganization, evaluating whether the target primary key with the value ~~of~~ is greater than or less than the primary key of the record contained in the primary block and the overflow blocks that the reorganization pointers is pointing to;

when the target primary key is evaluated to be greater than or equal to the primary key of the record stored in the block that the reorganization pointer is pointing to, us[[e]]ing the current location table to retrieve the target record; ~~and~~

using the current location table to perform a binary search on the entries between the current reorganization pointer and the final pointer in the current location table;

when the target primary key is evaluated to be less than that primary key, us[[e]]ing the new location table to retrieve the target record~~.~~; and

using the new location table to perform a binary search between the first address in the new location table and the reorganization pointer.

Claim 22 (currently Amended): A database reorganization system, comprising:

data records for holding data containing primary keys and alternate keys;

primary blocks that store the data records in the order of their primary keys;

overflow blocks linked to the primary blocks;

a location table reserved in a contiguous region;

a location table contains location table entries,

said location table entry contains addresses of the primary block,

alternate-key entries that hold data entries, each alternate-key entry comprises an alternate key and a primary key;

alternate-key blocks for containing the alternate-key entries; and

to retrieve data with an alternate key performing a binary search on the alternate-key location table

said database reorganization system further comprising:

alternate-key overflow blocks linked to the alternate-key blocks;

a current alternate-key location table and new alternate-key location table~~s~~ for containing alternate-key location table entries in contiguous regions;

a current alternate-key location table reorganization pointer that indicates a progress of reorganization of the alternate-key location table and alternate-key blocks for the current alternate-key location table~~s~~; to sequentially write l alternate-key location table entries in the current alternate-key location table to the new alternate-key location table, said current alternate-key location table reorganization pointer indicates next address of current alternate-key location table entiry which had written alternate-key location table entry to new alternate-key location table,

a new alternate-key location table reorganization pointer that indicates a progress of reorganization of the alternate-key location table and alternate-key blocks for the new alternate-key location table~~; and~~, said new alternate-key location table reorganization pointer that indicates next address of new alternate-key location table which had written alternate-key location table entry in new alternate-key location table; and

an alternate-key final pointer that is provided to the current alternate-key location table to indicate the final position used by said alternate-key location table.

Claim 23 (previously presented): A method of reorganizing the database reorganization system of claim 22, comprising steps of:

sequentially writing entries in current alternate-key location table~~s~~ to a new alternate-key location table and, where alternate-key overflow blocks exists,

delinking the alternate-key overflow blocks, creating new alternate-key location table entries corresponding to the alternate-key blocks, and

adding new alternate-key location table entries to a new alternate-key location table.

Claims 24-25 (cancelled):

Claim 26 (currently amended): A method of reorganizing the database reorganization systems of claims 22 comprising steps of:

when retrieving a record with the alternate key during reorganization, evaluating whether the target alternate key value is greater or less than the alternate key of the entry contained in the alternate-key block that said reorganization pointer is pointing to;

using the current alternate-key location table to retrieve the target entry when the target alternate key is evaluated by the comparative means to be greater than or qual to the alternate key of the entry stored in the alternate-key blocks that the reorganization pointer is pointing to; and

using the current alternate-key location table to perform a binary search on the entries between the current reorganization pointer and the final pointer in the current alternate-key location table~~.~~

using the new alternate-key location table to retrieve the target entry when the target alternate key is evaluated to be less than the alternate key~~.~~

using the new alternate-key location table to perform a binary search between the first address in the new alternate-key location table and the reorganization pointer.